

Stephen A Slutz

List of Publications by Year in descending order

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47
papers

3,608
citations

147801

31
h-index

233421

45
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47
all docs

47
docs citations

47
times ranked

1086
citing authors

#	ARTICLE	IF	CITATIONS
1	An overview of magneto-inertial fusion on the Z machine at Sandia National Laboratories. Nuclear Fusion, 2022, 62, 042015.	3.5	35
2	Dense hydrogen layers for high performance MagLIF. Physics of Plasmas, 2022, 29, 022701.	1.9	2
3	Estimation of stagnation performance metrics in magnetized liner inertial fusion experiments using Bayesian data assimilation. Physics of Plasmas, 2022, 29, .	1.9	11
4	Fusion gain from cylindrical liner-driven implosions of field reversed configurations. Physics of Plasmas, 2021, 28, .	1.9	4
5	Deep-learning-enabled Bayesian inference of fuel magnetization in magnetized liner inertial fusion. Physics of Plasmas, 2021, 28, .	1.9	16
6	A Platform to Study High-Field FRC Formation on the Maize Linear Transformer Driver *. , 2021, , .		0
7	Increased preheat energy to MagLIF targets with cryogenic cooling. , 2021, , .		0
8	Lasergate: A windowless gas target for enhanced laser preheat in magnetized liner inertial fusion. Physics of Plasmas, 2021, 28, 112703.	1.9	1
9	Performance Scaling in Magnetized Liner Inertial Fusion Experiments. Physical Review Letters, 2020, 125, 155002.	7.8	65
10	Review of pulsed power-driven high energy density physics research on Z at Sandia. Physics of Plasmas, 2020, 27, .	1.9	140
11	A pulsed-power implementation of "Lasergate" for increasing laser energy coupling and fusion yield in magnetized liner inertial fusion (MagLIF). Review of Scientific Instruments, 2020, 91, 063507.	1.3	6
12	Implosion of auto-magnetizing helical liners on the Z facility. Physics of Plasmas, 2019, 26, 052705.	1.9	9
13	Constraining preheat energy deposition in MagLIF experiments with multi-frame shadowgraphy. Physics of Plasmas, 2019, 26, .	1.9	27
14	Assessing Stagnation Conditions and Identifying Trends in Magnetized Liner Inertial Fusion. IEEE Transactions on Plasma Science, 2019, 47, 2081-2101.	1.3	36
15	Origins and effects of mix on magnetized liner inertial fusion target performance. Physics of Plasmas, 2019, 26, .	1.9	37
16	Minimizing scatter-losses during pre-heat for magneto-inertial fusion targets. Physics of Plasmas, 2018, 25, .	1.9	30
17	Diagnosing and mitigating laser preheat induced mix in MagLIF. Physics of Plasmas, 2018, 25, .	1.9	33
18	Enhancing performance of magnetized liner inertial fusion at the Z facility. Physics of Plasmas, 2018, 25, .	1.9	34

#	ARTICLE	IF	CITATIONS
19	Megagauss-level magnetic field production in cm-scale auto-magnetizing helical liners pulsed to 500 kA in 125 ns. <i>Physics of Plasmas</i> , 2018, 25, 052703.	1.9	12
20	Scaling of magnetized inertial fusion with drive current rise-time. <i>Physics of Plasmas</i> , 2018, 25, 082707.	1.9	15
21	Auto-magnetizing liners for magnetized inertial fusion. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	21
22	Scaling magnetized liner inertial fusion on Z and future pulsed-power accelerators. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	65
23	Exploring magnetized liner inertial fusion with a semi-analytic model. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	22
24	Experimental Demonstration of the Stabilizing Effect of Dielectric Coatings on Magnetically Accelerated Imploding Metallic Liners. <i>Physical Review Letters</i> , 2016, 116, 065001.	7.8	78
25		1.9	36
26	<i>Physics of Plasmas</i> , 2015, 22, 056306.	1.9	75
27	Effects of magnetization on fusion product trapping and secondary neutron spectra. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	37
28	A semi-analytic model of magnetized liner inertial fusion. <i>Physics of Plasmas</i> , 2015, 22, 052708.	1.9	39
29	Modified helix-like instability structure on imploding z-pinch liners that are pre-imposed with a uniform axial magnetic field. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	69
30	Pulsed-coil magnet systems for applying uniform 10–30 T fields to centimeter-scale targets on Sandia's Z facility. <i>Review of Scientific Instruments</i> , 2014, 85, 124701.	1.3	47
31	Effect of axial magnetic flux compression on the magnetic Rayleigh-Taylor instability (theory). <i>AIP Conference Proceedings</i> , 2014, .	0.4	17
32	Design of magnetized liner inertial fusion experiments using the Z facility. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	123
33	Experimental Demonstration of Fusion-Relevant Conditions in Magnetized Liner Inertial Fusion. <i>Physical Review Letters</i> , 2014, 113, 155003.	7.8	332
34	Understanding Fuel Magnetization and Mix Using Secondary Nuclear Reactions in Magneto-Inertial Fusion. <i>Physical Review Letters</i> , 2014, 113, 155004.	7.8	105
35	Observations of Modified Three-Dimensional Instability Structure for Imploding z -Pinch Liners that are Premagnetized with an Axial Field. <i>Physical Review Letters</i> . 2013. 111. 235005.	7.8	101
36	Beryllium liner implosion experiments on the Z accelerator in preparation for magnetized liner inertial fusion. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	95

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37	Simulations of electrothermal instability growth in solid aluminum rods. Physics of Plasmas, 2013, 20, .	1.9	58
38	Electrothermal instability growth in magnetically driven pulsed power liners. Physics of Plasmas, 2012, 19, .	1.9	102
39	Magnetically Driven Implosions for Inertial Confinement Fusion at Sandia National Laboratories. IEEE Transactions on Plasma Science, 2012, 40, 3222-3245.	1.3	154
40	Penetrating Radiography of Imploding and Stagnating Beryllium Liners on the Z Accelerator. Physical Review Letters, 2012, 109, 135004.	7.8	102
41	High-Gain Magnetized Inertial Fusion. Physical Review Letters, 2012, 108, 025003.	7.8	244
42	Measurements of magneto-Rayleigh-Taylor instability growth during the implosion of initially solid metal liners. Physics of Plasmas, 2011, 18, .	1.9	104
43	Measurements of Magneto-Rayleigh-Taylor Instability Growth during the Implosion of Initially Solid Al Tubes Driven by the 20-MA, 100-ns Z Facility. Physical Review Letters, 2010, 105, 185001.	7.8	132
44	Pulsed-power-driven cylindrical liner implosions of laser preheated fuel magnetized with an axial field. Physics of Plasmas, 2010, 17, .	1.9	486
45	Target design for high fusion yield with the double Z-pinch-driven hohlraum. Physics of Plasmas, 2007, 14, 056302.	1.9	60
46	Pulsed-power-driven high energy density physics and inertial confinement fusion research. Physics of Plasmas, 2005, 12, 055503.	1.9	280
47	Production of Thermonuclear Neutrons from Deuterium-Filled Capsule Implosions Driven by Z-Pinch Dynamic Hohlraums. Physical Review Letters, 2004, 93, .	7.8	111